

II. Remarks and Arguments

Claims 1 to 8 are pending.

Rejection under 35 U.S.C. § 103(a)

Claims 1-3, 7 and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Busato (WO 99/06893) in view of Maller (U.S. Patent No. 6,256,185).

Busato discloses a control for controlling certain solenoid-actuated devices utilized in motor vehicles, e.g., electric exhaust gas recirculation (EEGR) valves and canister purge solenoid (CPS) valves. The control described in Busato seeks to improve control of flow through a valve via selective use of a proportional high-frequency (primary) control signal and a proportional low-frequency (secondary) control signal, such that, in certain situations, the higher frequency control signal is selectively gated by the relatively lower-frequency control signal. During this mode of operation, the modulated frequency (waveform) will operate the valve to positions that are a function of the proportional low-frequency signal within a range of positions having a limit established by the proportional high-frequency signal, which ultimately provides the control with the ability to more accurately control the fluid flow through the valve when the valve is to operate in a different span. (See: Busato, page 6, lines line 5 through page 7, line 34).

Independent claim 1 recites:

1. An electromagnetic regeneration valve for venting a tank of a motor vehicle, the regeneration valve being actuatable by pulse-width modulation and having a pulsed mode and a proportional mode having a higher frequency than the pulsed mode comprising:
a solenoid, and circuitry configuration including:
a power source for supplying the solenoid with electricity;
a control unit for generating pulse-width-modulated signals;
a switching device, the solenoid capable of receiving the pulse-width-modulated signals of the control unit via the switching device; and
a suppression device for suppressing high induced voltages at the solenoid, the solenoid in the proportional mode having a position

corresponding to a mean current level.

Busato does not disclose or suggest “a switching device” as claimed in claim 1. Element 26a in Fig. 4 of the Busato reference is a resistor and not a switch as suggested by the Office Action at page 2, second to last line (See: Busato page 14, line 36 to page 15, line 4).

Although the Maller patent discloses the general use of switches, there would have been no reason or motivation for one of skill in the art to replace a resistor with a switch, nor has any such reason or motivation been asserted.

As claims 2-3, 7, and 8 depend from claim 1, these claims would also not be obvious over Busato in view of Maller.

Withdrawal of the rejections under 35 U.S.C. §103(a) is respectfully requested.

Claims 5 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Busato in view of Maller and of Klotz et al. (U.S. Patent No. 4,915,204).

As discussed above with regard to Busato and Maller, Busato does not disclose a switching device as claimed in independent claim 1. Accordingly, dependent claims 5 and 6 of the present invention would not have been obvious over Busato in view of Maller and in further view of Klotz. Withdrawal of the rejections under 35 U.S.C. §103(a) is respectfully requested.

Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Busato in view of Maller and Stumpf (U.S. Patent No. 4,851,959). As discussed above with regard to Busato and Maller, Busato does not disclose a switch as claimed in independent claim 1. Accordingly, dependent claim 4 of the present invention would not have been obvious over Busato in view of Maller in further view of Stumpf. Withdrawal of the rejections under 35 U.S.C. §103(a) is respectfully requested.

CONCLUSION

It is respectfully submitted that the present application is in condition for allowance and applicants respectfully request such action.

A check in the amount of \$120.00 is enclosed for the fee due under 37 C.F.R. § 1.17(a)(1) for a one-month extension of time from September 28, 2005 to October 28, 2005. It is believed that no additional fees are due for this submission. If it is determined that any additional fees are due, the Commissioner is hereby authorized to deduct such fees from Deposit Account No. 50-0552.

Respectfully submitted,

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